

**W claim:**

1. A method for controlling a multi-carrier amplifier comprising:

generating an aggregate scaling factor based on a plurality of averaging times selected from a power rating profile,

wherein the aggregate scaling factor is used to control a multi-carrier, amplifier power level.

2. The method as in claim 1 comprising:

adjusting one or more power thresholds using amplifier scaling factors from one or more slower amplifier loops to reduce the effect of faster loops;

generating a plurality of amplifier scaling factors from the adjusted power thresholds; and

generating the aggregate scaling factor from the amplifier scaling factors.

3. The method as in claim 1 comprising:

generating one or more carrier signal scaling factors from the aggregate scaling factor and one or more intermediate carrier scaling factors.

4. The method as in claim 3 comprising:

generating one or more carrier signal powers using the one or more carrier signal scaling factors; and

generating an amplifier input power from the one or more carrier signal powers.

5. The method as in claim 1 wherein the plurality of averaging times equals at least one of two and three.

6. The method as in claim 1 comprising wirelessly transmitting an amplified, multi-carrier signal.

7. The method as in claim 6 wherein the multi-carrier signal comprises signals selected from a group consisting of Code Division Multiple Access (CDMA), Universal Mobile Telecommunication Systems (UMTS), Global Systems for Mobile communications (GSM),

High Data Rate (HDR), and Time-Division, Multiple Access (TDMA) signals.

8. The method as in claim 4 comprising:

generating one or more HDR carrier signal powers without applying a scaling factor; and

generating an amplifier input power from the unscaled HDR carrier signal powers and one or more scaled carrier signal powers.

9. The method as in claim 2 wherein the power thresholds are selected from the group consisting of a short-term power threshold, mid-term power threshold and long-term power threshold.

10. The method as in claim 1 wherein the averaging times comprise 3 second, 2 minute and 10 minute averaging times.

11. The method as in claim 1 comprising:

adjusting at least one carrier signal power threshold by the aggregate scaling factor;

comparing the adjusted carrier signal power threshold to at least one associated pre-scaled carrier signal power; and

admitting or denying a call based on results of the comparison.

12. A device for controlling a power level of a multi-carrier amplifier comprising:

a scaling factor generator operable to;

generate an aggregate scaling factor based on a plurality of averaging times selected from a power rating profile,

wherein the aggregate scaling factor is used to control a multi-carrier, amplifier power level.

13. The device as in claim 12 wherein the generator is further operable to:

adjust one or more power thresholds using amplifier scaling factors from one or more slower amplifier loops to reduce the effect of faster loops;

generate a plurality of amplifier scaling factors from the adjusted power thresholds; and

generate the aggregate scaling factor from the amplifier scaling factors.

14. The device as in claim 12 comprising a radio control section operable to:

generate one or more carrier signal scaling factors from the aggregate scaling factor and one or more intermediate carrier scaling factors.

15. The device as in claim 14 wherein the radio control section is further operable to:

generate one or more carrier signal powers using the one or more carrier signal scaling factors; and

generate an amplifier input power from the one or more carrier signal powers.

16. The device as in claim 12 wherein the plurality of averaging times equals at least one of two and three.

17. The device as in claim 12 further comprising one or more amplifiers operable to wirelessly transmit an amplified, multi-carrier signal.

18. The device as in claim 17 wherein the multi-carrier signal comprises signals selected from a group consisting of CDMA, UMTS GSM, HDR and TDMA signals.

19. The device as in claim 14 wherein the radio control section is further operable to:

generate one or more HDR carrier signal powers without applying a scaling factor; and

generate an amplifier input power from the unscaled HDR carrier signal powers and one or more scaled carrier signal powers.

20. The device as in claim 13 wherein the power thresholds are selected from the group consisting of a short-term power threshold, mid-term power threshold and long-term power threshold.

21. The device as in claim 12 wherein the averaging times comprise 3 second, 2 minute and 10 minute averaging times.

22. The device as in claim 12 comprising a call admission control section operable to:

adjust at least one carrier signal power threshold by the aggregate scaling factor;

compare the adjusted carrier signal power threshold to at least one associated pre-scaled carrier signal power; and

admit or deny a call based on results of the comparison.